Cohoes Company Power Canal System
Head Gate House
N. end of the power canal
abutting the E. bank
Cohoes, Albany County,
New York

HAER No. NY-8

NY, COHO,
3P-

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Office of Archeology and Historic Preservation
National Park Service
U.S. Department of the Interior
Washington, D.C. 20240

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HISTORIC AMERICAN ENGINEERING RECORD

COHOES COMPANY POWER CANAL SYSTEM: HEAD GATE HOUSE HAER NO. NY-8

Location: North end of the power canal abutting the east bank
Cohoes, Albany County, New York
Latitude: 42° 47' 43" N. Longitude: 73° 42' 52" W.

Date of Erection: 1866

Designers: William Worthen, C.E., and David Van Auken, C.E., architect

Present Owner and Occupant: Niagara Mohawk Power Corporation

Present Use: Head gate house for hydroelectric station

Significance: In addition to its practical function as a gate house controlling the flow of water to the canal, the head gate house was conceived romantically as a Romanesque Revival, brick bastion at the head of the power canal where it is fed by the Mohawk River.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. The inscription on the builder's stone formerly inset on the front of the central tower reads:

1866
COHOES COMPANY
ALFRED WILD, President
T. G. YOUNGLOVE, Agent
DIRECTORS
ALFRED WILD, WILLIAM T. GARNER,
CHARLES VAN BENTHUYSEN, DAVID J. JOHNSTON,
SAMUEL W. JOHNSON, WILLIAM W. NILES,
TRUMAN G. YOUNGLOVE.

STONE DAM ERECTED 1865
HEAD GATES AND GATE HOUSE ERECTED 1866
WILLIAM E. WORTHEN, ENGINEER.
DAVID H. VAN AUKEN, Assistant Engineer.
JOHN BRIDGFORD, Contractor.
First Dam Erected 1831. Partially
Destroyed by Ice 1839 and Repaired
Same Year.
Second Dam Erected 1839.

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2. Original purpose and construction: According to one source, "the cost of the dam and appurtenances [i.e., the head gates and head gate house] was $180,000." (A. H. Masten, History of Cohoes) David Van Auken, assistant engineer for the head gate house, was the architect for Harmony Mill No. 3 which began its operation in 1866 as well.

3. Alterations and additions: The square, crenelated tower on the central part of the head gate house has been removed as well as the hipped roofs of the flanking, two-story towers, which now are flat-roofed, as the center tower had been. In 1911, when the entire power canal system was abandoned in favor of hydroelectric power transmission, the stem of the T-shaped building was extended by a slightly higher, one-story brick addition housing the additional gates necessitated by the widened canal (headrace).

B. Sources of Information:

1. Old view: Photograph of the original front elevation. This print also provides the information incised on the commemorative builder's stone. From Niagara Mohawk Power Corporation.

2. Bibliography:

Masten, Arthur Haynesworth. History of Cohoes, New York, from its Earliest Settlement to the Present Time. Albany: Joel Munsell, 1877.

Weise, Arthur James. City of Troy and its Vicinity. Troy: Edward Green, 1886.

Prepared by R. Carole Huberman
Historian
Historic American Engineering Record

Robert M. Vogel
Curator of Mechanical and Civil Engineering
Smithsonian Institution
August 1970

PART II. ARCHITECTURAL INFORMATION

N.B. Material below obtained from secondary sources listed above, as the building was inaccessible at time of initial survey.

A. General Statement:

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1. Architectural character: A Romanesque Revival, brick structure founded in the water and over the headgates of the canal.

2. Condition of fabric: Good.

B. Detailed Description of Exterior:

1. Over-all dimensions: According to Arthur H. Masten, History of Cohoes . . . , p. 182, "It is 218 feet long; and the front tower is 31, and the main towers are 43 feet in height."

2. Plan: Symmetrical T.

3. Foundations: Stone masonry.

4. Wall construction and finish: Brick running bond with decorative, corbelled arcade at cornice and beltcourse levels.

5. Structural system: Probably solid brick masonry construction.

6. Openings:

   a. Doors and doorways: An arched brick doorway in the center of the building with substantial, diagonally panelled, double wood doors.

   b. Windows: Within tall, narrow and shallowly hooded and bracketed brick arches are wood frame 6-over-6 double-hung windows with fanlights.

   c. Ventilators: Slender arched apertures with horizontal louvres and shallow brick hood and bracket detail, on the upper level of the end towers.

7. Roof:

   a. Shape and covering: The original section of building, aside from the tower areas, has a low-pitched, slated roof. Originally, the end towers boasted steep roof peaks of slate shingle crowned with ironwork at the ridge. The new section has a flat roof with a raised brick parapet.

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b. Cornice: The brick cornice is delineated and decoratively accented by corbelled arcades which are heavier at the end tower roofs. Originally, there was a central tower with a crenelated termination.

Prepared by R. Carole Huberman
Historian
Historic American Engineering Record
August 1970

PART III. PROJECT INFORMATION

These records were prepared as part of the Mohawk-Hudson Area Survey, a pilot study for the Historic American Engineering Record which was established in 1969 under the aegis of the Historic American Buildings Survey. The project was sponsored jointly by the National Park Service (Historic American Buildings Survey), the Smithsonian Institution (National Museum of History and Technology), the American Society of Civil Engineers (National Headquarters and Mohawk-Hudson Section), and the New York State Historic Trust. The field work and historical research were conducted under the general direction of Robert M. Vogel, Curator of Mechanical and Civil Engineering, Smithsonian Institution; James C. Massey, Chief, Historic American Buildings Survey; and Richard J. Pollak, Professor of Architecture, Ball State University, Project Supervisor; and with the cooperation of the Department of Architecture, Rensselaer Polytechnic Institute.

ADDENDUM

Cohoes Company, Gate House No. 1 HAER No. NY-8
(Cohoes Company Power Canal System: Head Gate House)
On the Mohawk River, 3.6 miles upstream from its mouth
Cohoes
Albany County
New York

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Addendum to
Cohoes Company Power Canal System: Head Gate House
N. end of the power canal abutting the east bank
Cohoes
Albany County
New York

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, DC 20013-7127

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HISTORIC AMERICAN ENGINEERINC RECORD

Cohoes Company, Cate House No. 1

HAER No. NY-8

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Location:	On the Mohawk River, 3.6 miles upstream from its mouth, Colonie, Albany County, New York
Date of Construction:	1866
Present Owner:	Niagara Mohawk Power Corporation 300 Erie Boulevard West Syracuse, New York 13202
Present Use:	The superstructure of the T section has no present or intended use. The substructure is utilized as an impoundment structure. The projected date of demolition of the superstructure of the T section is on or about August 6, 1984.
Significance:	The style of architecture displayed in the superstructure of Gate House No. 1 appears to be an adaptation of early mill styles. While the superstructure may be somewhat unique (i.e., twin towers and brick arches), other examples of the brick corbeling and masonry details are displayed on the remaining gated section of Gate House No. 1 as well as other structures in the Cohoes area (i.e., Harmony Mills).
Prepared by:	E. M. Paolini Designer Niagara Mohawk Power Corporation Hydro Ceneration - Design June 12, 1984
Transmitted by:	Jean P. Yearby, HAER, 1985

PART I. HISTORICAL INFORMATION

A. Physical History

1. Date of erection: 1866, as evidenced by a date stone located on the southwest foundation wall and a "plaque" located in the gated section of Gate House No. 1.

2. Engineer: William E. Worthen

3. Assistant Engineer: David H. Van Auken

4. Contractor: John Bridgford

5. Original and subsequent owners:

Gate House No. 1 was constructed in 1866 on land owned by the Cohoes Company in the town of Colonie, Albany County, New York. The subsequent owners are as follows:

1918 Deed; the Cohoes Company to the Cohoes Power and Light Corporation by deed dated December 31, 1918, as recorded in the Albany County Clerk's Office in Book 669 of Deeds at page 479.

1927 Consolidation; the Cohoes Power and Light Corporation consolidated with the New York Power and Light Corporation as filed with the Corporations Bureau of the Secretary of State - October 26, 1927.

1950 Consolidation; New York Power and Light Corporation consolidated with Niagara Mohawk Power Corporation as filed with the Corporations Bureau of the Secretary of State - January 1, 1950.

6. Alterations and additions:

Gate House No. 1 has been altered substantially since originally constructed in 1866. The original Cate House No. 1 consisted of a 120 foot long gated section, placed perpendicular to the power canal and a 100 foot T section positioned 90 degrees to the above 120 foot section and defining the east boundary of the same power canal. The original 120 foot long gated section included a tower at the western end.

This tower was demolished around 1922-23 when an 80-foot long taintor gated section was added to the original 120-foot long section making up the present 200-foot long gated section.

Also, sometime between 1922-23 and the present, the peaked slate roofs (with ornamental wrought iron work) on the two towers of the existing 100 foot long T section were removed and replaced with flat roof decks.

The parabolic brick arch on the south end of Gate House No. 1 was also reinforced with the addition of three (3) concrete buttresses.

B. Historical Context

The original use of this 100 foot section of Gate House No. 1 is assumed to have been to provide shelter for two mechanical gate operators used to dewater the forebay and the power canal respectively. The gate utilized to dewater the forebay (north end of 100 foot T section) has been abandoned and the operator partially removed.

Another assumed use of this 100 foot section was to house a Pelton-type waterwheel which propelled the gate operating mechanism controlling water flows into the power canal. This system has since been replaced with a gasoline driven operator.

The second operator on the south end of the 100 foot T section is presently utilized to control a mud sluice which dewaters the north end of the power canal.

The deteriorated condition of this equipment as well as the operating constraints caused by the confined work area and restricted access impose a severe hardship in the use of this gate.

The present significance of Gate House No. 1 - T section and use of same bears no resemhlance to the assumed use and significance discussed above. Its physical size (100 feet by 10 feet), as well as its design (i.e., two parabolic brick arches which restrict heavy loading) prevent it from being useful today even as a storage facility. Its only use in recent times has been to allow access to the adjoining stoplog waste sluice located along the power canal immediately adjacent to the Gate House section in question.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

The Gate House No. 1 structure consists of a T-shaped building. One section is approximately 200 feet long by 13 feet wide and contains twelve canal head gates. This gated section of the building is placed across the power canal and will remain intact. The other section of the building is approximately 100 feet long by 10 feet wide (outside dimensions) containing two arch sections and flat roof towers and is placed perpendicular to the previously mentioned section. This section will be demolished.

1. Architectural character: Gate House No. 1 has a limestone masonry block foundation with brick superstructure.

2. Condition of fabric: The 100 foot by 10 foot section is considered deteriorated.

B. Description of Exterior:

1. Overall dimensions: 100 foot long by 10 foot wide (7 foot wide inside dimensions)

2. Foundation: Constructed of limestone masonry block with rubble fill, sitting on shale.

3. Walls: Constructed of common bond unreinforced brick masonry with extensive brick corbeling throughout its exterior.

4. Structural system framing: Unreinforced brick with timber ceiling and roof rafters.

5. Decorative features:

a) Towers: There are two flat roof towers approximately 17'-6" x 10'-0" x 29'0" high placed on both ends of the 100 foot long section.

b) Arches: Between the tower sections are two 27 foot ± long parabolic brick arches, one of which has been reinforced with three concrete buttresses.

c) Porches: One metal frame porch approximately 4 foot long x 3 foot wide with located on the east side of the building.

6. Openings:

a) Doors: Three wooden exterior doors approximately three feet wide x seven feet high with semicircular brick arches above.

b) Windows: Sixteen wood windows approximately 2 feet wide by 7 feet high with semicircular brick arches above. Six-over-six double hung.

c) Shutters: The tower sections contain eighteen wooden shutters, sixteen of which ares apprximately 1' 6" wide by 10' high. The remaining two shutters are approximately 2' wide x 6' high. The shutters are located in the upper section of the towers.

7. Roof:

a) The two tower sections have flat concrete panel roof decks with built-up roofs and brick parapet walls. The section between the towers (approximately 52' long and 10' wide) has a gabled slate roof.

C. Description of Interior

1. Floor plans: See pages 7 and 8.

2. Flooring: Concrete

3. Walls: Painted brick masonry

4. Ceilings: Pressed fiber board (painted) nailed to wood deck

5. Openings:

a) Archways: Two interior archways approximately 3' wide x 7' high.

b) Doors: Two interior wood panel doors approximately 3' wide by 7' high.

6. Mechanical equipment:

a) Lighting: Individual incandescent bulbs.

b) One rack and pinion mechanical gate operator, remains of others.

D. Site:

Gate House No. 1 is located on the west end of a 1,280 foot long masonry dam across the Mohawk River. This gate house is at the north end of a 5,100 foot long canal which provides water to the five turbine-generators in the powerhouse at the School Street Hydroelectric development.

PART III. SOURCES OF INFORMATION

A. Original architectural drawings: None available.

B. Early views: None

C. Interviews: Niagara Mohawk Power Corporation Regional Operations personnel were canvassed but none could lend any historic information to augment what was already known.

D. Bibliography: Niagara Mohawk Power Corporation files.

E. Likely sources not yet investigated: None could be identified.

PART IV. PROJECT INFORMATION

Agencies Involved:

New York State Office of Parks, Recreation and Historic Preservation

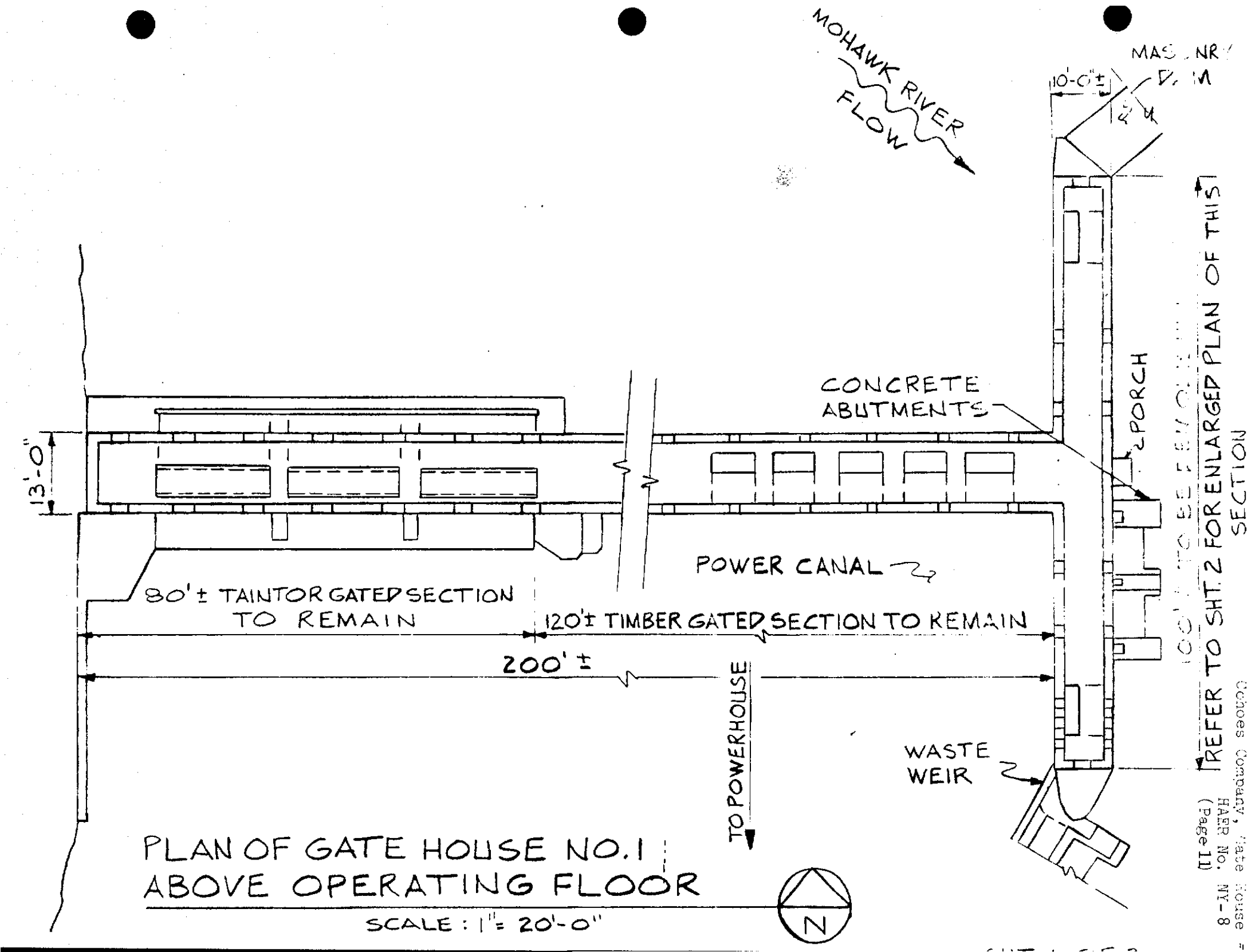
Department of the Army - New York District Corps of Engineers

Federal Energy Regulatory Commission

Niagara Mohawk Power Corporation

City of Cohoes

School Street Hydro Development - Rehabilitation (the name of the project causing demolition)



PLAN OF GATE HOUSE NO. 1 ABOVE OPERATING FLOOR

SCALE : 1" = 20'-0"

Schoes Company, Gate House
HAER No. NY-8
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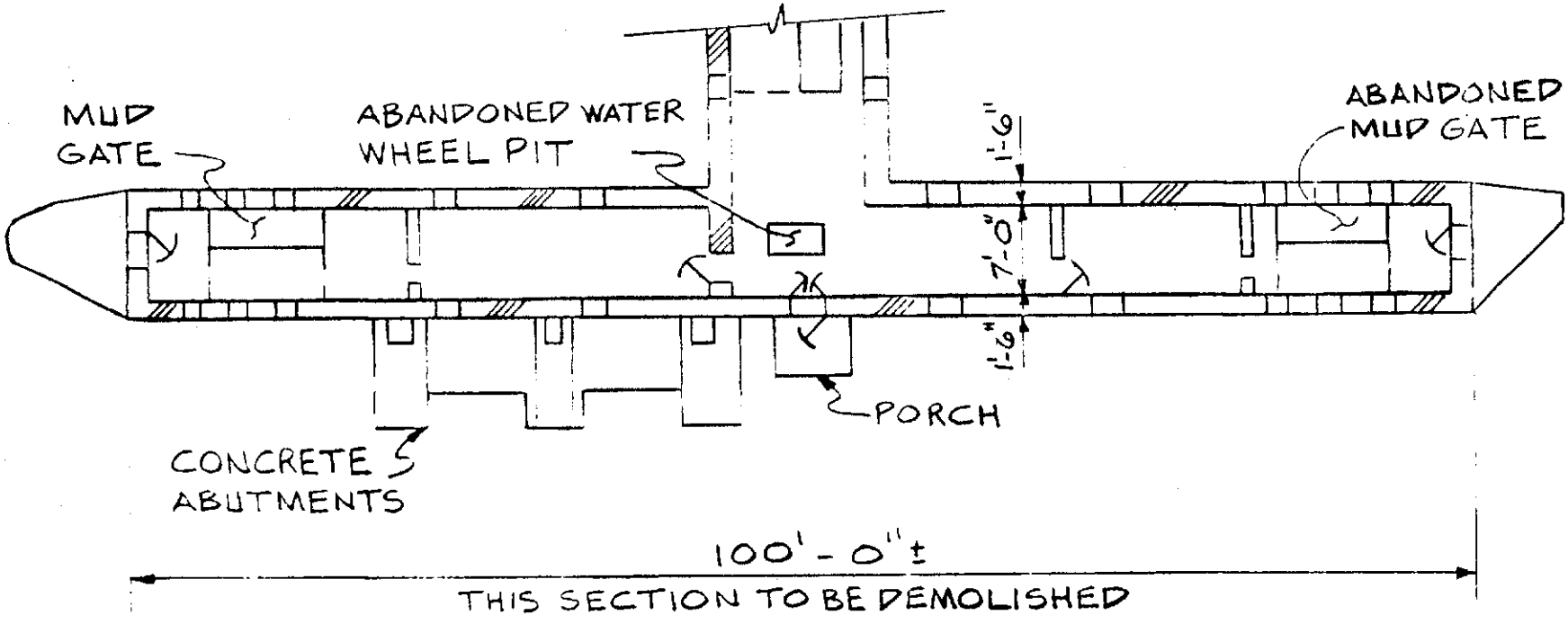

PLAN OF GATE HOUSE NO. 1 ABOVE OPERATING FLOOR

NO SCALE

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